

Harvard 1969 Class chat November 3, 2022, Thursday, 5PM EST

How has the care for patients with *heart attack* changed in our lifetime?

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Acute myocardial infarction (death of heart muscle), often called a heart attack, is a subset of *acute coronary syndromes*. Coronary syndromes are caused by *ischemia*, or inadequate oxygen supply to meet the heart's metabolic demands. Oxygen supply is determined by the flow of oxygen carrying blood to the heart, through the coronary arteries. Most heart attacks are caused by obstructive disease of the coronary arteries. Coronary syndromes can be acute (seconds-minutes-hours) like heart attacks, or chronic (weeks-months-years) like *chronic angina*.

- The hospital *mortality* associated with an *acute myocardial infarction* (MI) has been reduced nearly 10-fold in the past 50 years.
- The average hospital stay for an MI has been reduced from ~3 weeks to 1-3 days.

How did these advances occur?

- The role of clot, or *thrombus*, in acute syndromes was confirmed by human data, in the 1970s. We now recognize two primary pathologies of *coronary artery disease*
 - *Atherosclerosis*, or hardening of the arteries, causes most chronic syndromes.
 - *Atherothrombosis* (clot or thrombus) causes most acute coronary syndromes.
- Methods have been developed to increase the flow of oxygen-carrying blood to the heart in patients with acute coronary syndromes (*reperfusion*) and chronic coronary syndromes (*revascularization*), since the late 1960s.
- Clinical epidemiology, or the study of disease frequency rates in patient groups, has provided objective evidence for many of our changes in treatment, since WWII.

Six Heroes including their Patients

- Mason Sones, MD Coronary Angiography 1958
- Rene Favolaro, MD Coronary Artery Bypass Surgery or Bypass 1967
- Andreas Gruntzig, MD Balloon Angioplasty or Plasty 1977
- Geoffrey Hartzler, MD Plasty for Acute Myocardial Infarction early 1980s
- Spokane Cardiac Surgeons and Cardiologists Bypass for Myocardial Infarction 1972-76
- David Sackett, MD evidence-based medicine text *Clinical Epidemiology* 1992

Please participate in the Zoom chat! Please bring questions, comments, and suggestions!

Read *Different Drummer* a cardiologist's memoir of imperfect heroes and care for the heart

<https://www.amazon.com/author/douglassandrewmorrison>

<https://www.barnesandnoble.com/w/different-drummer-douglass-andrew-morrison/1140394728?ean=9781525599767>